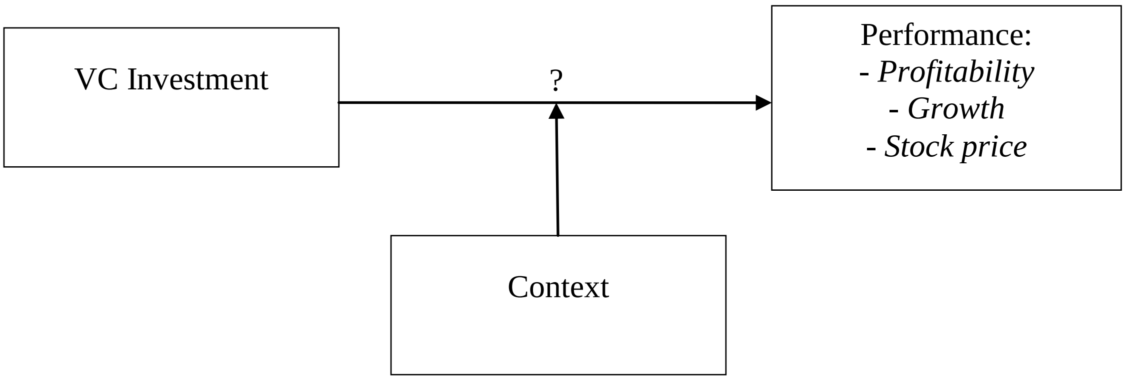
ACE Research Vignette : Is venture capital investment the key to success?

This series of research vignettes is aimed at sharing current and interesting research findings from our team of international Entrepreneurship researchers. This vignette, written by Professor Per Davidsson, reports on a paper which synthesizes available research on the effects of VC funding on the performance of the funded firm.

Background and Research Question

Very few firms ever attract formal venture capital (VC) investment, especially at very early stages. In the CAUSEE project, which follows random samples of over 1,000 Australian start-ups and young firms, we could only identify a handful with formal VC investment. Even in the US, a tiny fraction of all firms ever attract this type of funding. This said, it may be a dream milestone for high-tech start-ups with considerable development costs, and for other ambitious start-ups which seek fast international expansion. Therefore, in this vignette we address the following research question:

Do VC investments enhance the performance of funded firms? Further, how does this relationship vary depending on the context of the investment?



How was this investigated?

Rosenbuschand colleagues synthesized the evidence form 48 studies (two from Australia) which used 76 independent samples from a range of countries, which provided data on a total of 36,567 firms. They did so using so called "meta-analysis" which is a technique for statistically aggregating the findings from all available studies. Because the original studies include different variables and measures, the authors coded and relabelled them into a few broad categories. Most studies compared VC-backed firms to other firms rather than detailing amounts or rounds of investment. Performance was assessed according to the three categories in the above figure. Two context indicators used by the authors are time based. The first is firm age (under 6 years; 6-12 years, and over 12 years); the second being pre- vs. post IPO stage (IPO = Initial Public Offering [to buy shares]). The third context indicator is "uncertainty avoidance" as a cultural, country-level variable, using Hofstede's well-known measure. Importantly, the researchers also made efforts to control for whether effects ascribed to VC investment truly are caused by the investment as such or to VCs choosing investment targets in more promising industries (where other firms in these industries also enjoy the same level of performance).

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Findings

The researchers expected, and found, an positive overall effect of VC investment on performance. However, the effect is surprisingly small (a correlation of .08; a "perfect" positive relationship is 1.0 whereas 0.0 denotes complete absence of a [linear] relationship). In addition, the effect all but vanishes in studies that control for industry. This means that the positive overall effects indicates that venture capitalists have some ability to go for the right industries, but not so much that their investments boost the performance of the firms they invest in. Moreover, the positive effect occurs for performance measured as growth but not profitability. This is problematic because of how growth and profitability are inter-related (see ACE vignette 004). The effect remains positive when only studies focusing on stock price are considered, but unlike the growth effect the stock market effect disappears after controlling for industry effects.

Further, the positive effect of VC funding primarily appears for investment in the middle age group, firms 6-12 years old. Presumably this coincides with a 'growth stage" in the firms' development. There is also some support that VC investment is more effective prior to IPO than post-IPO, and in countries characterized by low uncertainty avoidance (Australia is medium-level in uncertainty avoidance). Overall, the impression is that VC funding has less positive effects than what is commonly believed. This goes also for the two Australian studies included in the meta-analysis; they do not provide clear support for positive performance effects of VC funding.

Venture capital investments are complex and each case is unique to some extent. No doubt, in some case the VC injection is crucial to the funded firm's future success. We should also remind that no research is perfect; in particular, the research reported here in most cases only had crude information about the existence or non-existence of VC funding rather than detailed information on amounts and how they were staged over time; what competence the VC firm brought to the company, and what form of involvement the VCs had with the management of the funded firm. This said, the study summarized above arguably represents the best available evidence on what effects VC investments have "across the board". The answer is that the positive effects are surprisingly small or non-existent.

Business and Policy Advice

One effect contributing to the results may be what is called "adverse selection" – the tendency for those who are less sure about the quality of what they have to be more willing to share it with others. Owners who are dead certain they are sitting on a gem will be willing to invest all of their own resources in it, and do all they can to keep their own ownership share as high as possible. The authors of the reviewed article suggest additional reasons for the observed results. One is that although VCs may have the ability to identify industries with above-average future returns, these industries are typically dynamic and uncertain. This makes it hard to pick the winners within these industries. Further, they caution that VC-backing may instill a false sense of security among the funded firm's managers, and divert their attention away from interaction with potential customers. When founders start to focus on the next round of funding rather than on profits from sales as the "natural" way to keep going, things are starting to go seriously wrong. These are traps practitioners need to carefully consider in VC funding.

This research vignette was written by: Professor Per Davidsson, Director of ACE, primarily based on the following article:

Rosenbusch, N., Brinckmann, J., & Müller, V. (2013). Does acquiring venture capital pay off for the funded firms? A meta-analysis on the relationship between venture capital investment and funded firm financial performance. Journal of Business Venturing, 28(3), 335-353.

Keywords: venture capital; IPO; start-up; firm age; growth; performance; meta-analysis